Radiologist uncertainty and the interpretation of screening.

OBJECTIVE: To determine radiologists' reactions to uncertainty when interpreting mammography and the extent to which radiologist uncertainty explains variability in interpretive performance.

METHODS: The authors used a mailed survey to assess demographic and clinical characteristics of radiologists and reactions to uncertainty associated with practice. Responses were linked to radiologists' actual interpretive performance data obtained from 3 regionally located mammography registries.

RESULTS: More than 180 radiologists were eligible to participate, and 139 consented for a response rate of 76.8%. Radiologist gender, more years interpreting, and higher volume were associated with lower uncertainty scores. Positive predictive value, recall rates, and specificity were more affected by reactions to uncertainty than sensitivity or negative predictive value; however, none of these relationships was statistically significant.

CONCLUSION: Certain practice factors, such as gender and years of interpretive experience, affect uncertainty scores. Radiologists' reactions to uncertainty do not appear to affect interpretive performance.

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